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ABSTRACT

This agenda document begins with the mission statement for the National Center for Research in Vocational Education (NCRVE), a statement which briefly discusses the four objectives around which the research and service agendas of NCRVE have been organized. Part 1 of the document, contains descriptions of research projects that will be conducted. They are categorized into the six issue areas into which NCRVE's research agenda is divided. The areas are: (1) context, goals, planning, and evaluation; (2) curriculum and instructional methods; (3) vocational education for special populations; (4) the development of personnel in vocational education; (5) the delivery system of vocational education and training; and (6) governance and policy. Each description provides the title, project directors, keywords, and summary, including projected products. Part 2 discusses the service functions for vocational educators and policymakers mandated by the Carl D. Perkins Vocational Education Act. It contains descriptions of eight service activities that will be undertaken. Descriptions provide title, project directors, keywords, and summary. An index to keywords is appended. (YLB)

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THE 1991 AGENDA
FOR THE
NATIONAL CENTER FOR RESEARCH
IN VOCATIONAL EDUCATION

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The University of California at Berkeley
Subcontractors:
The University of Illinois
The University of Minnesota
The RAND Corporation
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MISSION STATEMENT

The National Center for Research in Vocational Education (NCRVE), located at the University of California at Berkeley, is a resource for research and exemplary practice in vocational education. NCRVE is a national institution with an active program of applied and basic research and is comprised of a group of nationally recognized scholars who hold a deep commitment to the vocational education community. NCRVE also offers an extensive array of services to its clients across the country. The University of California at Berkeley is assisted in its efforts by five subcontractors: the University of Illinois; the University of Minnesota; the RAND Corporation; Teachers College, Columbia University; and Virginia Polytechnic Institute and State University. The presence of the NCRVE or one of its subcontractors in nearly every region of the country places the operation in direct contact with the enormous diversity of the labor markets in the United States. It also closely connects NCRVE with the practitioners it serves in each geographic region of the country.

The overall mission of the NCRVE is to engage in research and related activities designed to increase the access of all Americans, regardless of their aptitudes or abilities, to a high quality work life that is not only economically rewarding, but also personally fulfilling. Increasing access to satisfying work depends, in part, on better understanding three important questions. First, what knowledge, skills, and attitudes are required to succeed in the workplace of today and tomorrow, and how are these changing? Second, how is this requisite knowledge best learned? Third, how can these abilities be used more productively in the workplace? Consequently, improving employment opportunities for all Americans is at once an interactive inquiry into what students need to know, how best to help them learn it, and how best to use this knowledge in the workplace. This is the inquiry that forms the basis for NCRVE's research and service agendas.

To guide its research, NCRVE relies primarily on pursuing inquiry in a broad range of problem areas and/or disciplines to understand how the work-related knowledge base is changing, how to use this knowledge base more effectively, and how to use education more effectively on the job. Although we are concerned with improving the employment prospects of all students, we are especially concentrating our efforts on lower ability students whom schools have traditionally underserved. Evidence to date suggests that we need to rethink how to structure education along with vocational education, and also to

examine the disjunctures between how people work on the job and how they are expected to learn in schools.

Recent research on the changing nature of work, combined with the changing management of workplaces as well as growing evidence from employers, shows that, for more and more workers, success depends increasingly on the ability to work in teams, to share information, to pass on skills, and to make connections across tasks and larger occupational domains. These are characteristics of horizontally managed workplaces which have addressed the related problems of productivity, worker autonomy, and worker morale. These are characteristics which are antithetical to hierarchically organized schools, which stress individual achievement, hoarding of information, teacher-proof curricula, minimum achievement levels, excessive supervision, and the mastery of discrete bodies of knowledge. The result is an inevitable "win/lose" game, where some students must always be identified as more successful than others. As a consequence, behaviors encouraged in school bear little resemblance to behaviors needed to succeed in work.

Similarly, recent research in cognitive science reinforces long-held precepts that people learn best when abstract principles and concepts are presented in an experience-relevant context, when new learning builds upon prior learning, when students move systematically from the familiar to the unfamiliar, and when there are opportunities to integrate a wide range of knowledge and skills. Unfortunately, many conventional approaches to education ignore these generalizations. Academic education is often delivered in complete isolation from vocational education. Within each of these curricula, there are artificial and arbitrary compartments for organizing the delivery of education into discrete academic enclosures or by narrowly defined occupational identities. The result is a curriculum so highly fragmented that it can be effectively mastered by only a portion of the most persistent and "brightest" of students.

What is known about how people learn and what is known about how to effectively organize work requires a critical reexamination of how schooling and work is organized. Traditional paradigms which isolate academic from vocational education are likely to perpetuate a system that makes most knowledge accessible to a very few. Similarly, a failure to scrutinize the ways in which we have traditionally employed skilled labor or compensated for the lack of skills is certain to diminish American productivity and the quality of life available to everyone.

Therefore, the research and service agendas of NCRVE have been organized around a number of objectives, including the following: (1) better understanding of how work is changing and what these changes imply for increasing students' understanding of work opportunities and for improving the relationship between schools and workplaces; (2) identifying better educational strategies for preparing students for work (with special attention to integrating vocational and academic education); (3) improving the articulation between secondary and postsecondary education and strengthening the capacity of postsecondary vocational education to respond to an increasingly diverse student body; and (4) improving the accountability of secondary and postsecondary education by knowing what to count, enhancing assessment practices, improving methods for monitoring performance, and linking performance to public policy. Each of these will be briefly discussed.

First, we seek to understand how work and its organization is changing and how the nature of different occupations and requirements for success can be better communicated to students of all ages. Additionally, we seek to improve ways to incorporate information about work and work organization into the full range of secondary and postsecondary curricula, including exploring alternatives to traditional approaches to guidance and counseling. Moreover, we believe that there must be better two-way communication between employers and educators. Merely relying on employers to dictate skill needs to educators is not sufficient because opportunities for innovation may be lost. Consequently, NCRVE seeks ways to better use the knowledge of educators to reorganize work and improve the quality of work life.

Second, we are committed to identifying and evaluating new educational designs that are grounded in research and stand the greatest chance of making knowledge and skills accessible to more students. A promising development, we believe, is the effort to integrate the vocational and academic curriculum in secondary and postsecondary education. Integration, however, will require careful implementation and rigorous evaluation. It must include strategies that require change in both the vocational and academic curriculum. Not only should vocational education be infused with much greater academic content, but also the academic curriculum should be altered to take advantage of the benefits of practical applications and learning in a familiar context. To this end, NCRVE is committed to defining alternative models of integration, assessing their

effectiveness, and building the capacity of the educational system to operate effective approaches.

Third, NCRVE will devote a substantial portion of its resources to improving articulation between secondary and postsecondary vocational education and to strengthening the capacity of the postsecondary vocational education enterprise. For a growing number of students, vocational education at the secondary level alone is unlikely to constitute sufficient preparation for work. Not only do more and more students not have sufficient time for vocational education in high school, but also advanced preparation is required in many more fields. To ensure that high school students use their time in vocational education wisely, better articulation with postsecondary vocational education is essential. Additionally, as postsecondary students will continue to become increasingly diverse with respect to age, race, and skills and aptitudes, special attention must be paid to strengthening the capacity of postsecondary vocational education to meet these students' needs and to assure that there is articulation with secondary vocational education.

Fourth and finally, NCRVE is committed to improving public accountability in secondary and postsecondary vocational education. Achieving this aim will depend, in part, on finding better ways to understand what should be counted and why, to assess students' progress and their accomplishments in vocational education. In part, it will also depend on designing programmatic and institutional systems of accountability. These systems will need to be sensitive to the dominant structural features of secondary and postsecondary education, while at the same time promising better information on student and institutional outcomes for policymakers and other users of information about vocational education.

PART ONE:

RESEARCH PROJECT DESCRIPTIONS

The NCRVE's research agenda is divided into six issue areas, each of them consistent with the original research agenda of the Center. The six issue areas are as follows:

I. Context, Goals, Planning, and Evaluation

This issue area examines the changing conditions of employment, to understand better how the goals of vocational education and the skills taught should be changing. It also contributes to refining the methodologies of evaluation and planning, so that information about the effectiveness of programs can be developed and then used to improve existing programs.

II. Curriculum and Instructional Methods

Once the goals of vocational programs have been established, then curriculum and instructional methods must be devised to translate those goals into practice. The research in this area will generate new ideas about the processes of imparting knowledge, attitudes, and skills to young people and adults.

III. Vocational Education for Special Populations

Particularly as demographic conditions change, a growing proportion of those needing occupational preparation will require special assistance in order to benefit fully from vocational programs. The analyses will focus not only on how existing programs for special populations can be improved, but also on more fundamental issues of how different groups are socialized for work and how they vary in their approaches to learning and schooling.

IV. The Development of Personnel in Vocational Education

In the recent "second wave" of educational reform, it has become clear that responsiveness to changing conditions is impossible without reforming the preparation of education professionals. This issue is especially important in vocational education, since the preparation of vocational teachers and administrators is so varied and policies have been so inconsistent. Research in this issue area will examine the current status of vocational teacher preparation, the nature of leadership in administration, and ways to prepare effective vocational leaders.

V. The Delivery System of Vocational Education and Training

Over the past three decades, vocational education and training have expanded in many institutions other than the high schools in which vocational education originated. The projects in this issue area will examine a wide variety of occupational preparation methods, concentrating especially on their relationships with high schools and community colleges and on the relative effectiveness of vocational preparation in different institutions.

VI. Governance and Policy

This issue area examines the status and the effectiveness of the current "system" of federal, state, and local policymaking in secondary and postsecondary vocational education.

I. CONTEXT, GOALS, PLANNING, AND EVALUATION

Project I.10
IMPLEMENTING PLANNING AND EVALUATION LINKAGES IN VOCATIONAL AND TECHNICAL EDUCATION

Project Directors: J. Dale Oliver, Donald E. Elson, and Deborah C. Strickland, Virginia Polytechnic Institute and State University (Year 4 of 4)

Keywords: Educational Planning, Coordination, Workshops

Federal vocational legislation has placed increasing emphasis on assessment, evaluation, and planning since the 1976 Vocational Education Amendments. States have responded by developing a myriad of models, systems, and procedures for the generation, collection, and analysis of labor market, enrollment, programmatic, and follow-up data.

For the past three years, the National Center for Research in Vocational Education (NCRVE) has funded this project. A final product of Year Three was a set of validated training materials for implementing improved planning and evaluation activities in state agencies.

In the fourth year of this project, project staff will implement the training materials through a series of three workshops for state directors of vocational education and provide technical assistance to the state directors and their staff.

In addition to the training materials, a final report will be produced by this project.

Project I.14
THE IMPLICATIONS OF PERFORMANCE-ORIENTED ASSESSMENTS FOR SECONDARY SCHOOL CURRICULUM AND TEACHING

Project Director: Linda Darling-Hammond, Teachers College, Columbia University (Year 1 of 2)

Keywords: Integration of Vocational/Academic Education, Evaluation Utilization, Measures (Individual), Performance Factors, Evaluation Methods

This study will examine (1) what the characteristics and uses are of newly emerging performance-based assessments of secondary students' learning; and (2) how these

dramatic changes in student assessment are influencing the kinds of school tasks students engage in and the kinds of teaching and learning experiences they encounter in vocational, academic, and integrated vocational/academic settings. The study will document a number of assessment models that have been or are being developed in the United States and elsewhere which respond to widespread concerns about current testing practices and their effects on the curriculum.

During year two of the study (1992), the researchers will select three schools using different models as case study sites for examining how the assessments influence the nature of curriculum and teaching.

This project will produce public-domain products in 1992.

Project I.15
THE USE OF ALTERNATIVE OUTCOME MEASURES IN VOCATIONAL-TECHNICAL EDUCATION

Project Directors: Debra D. Bragg and Tim L. Wentling, University of Illinois (Year 1 of 2)

Keywords: Evaluation Research, Evaluation Methods, Postsecondary Education

This two-year research project seeks to describe and evaluate the efficacy of selected alternative individual outcome measures and assessment approaches in secondary and postsecondary vocational-technical education settings. The focus of the study during the 1991 calendar year is to (1) identify and describe selected alternative assessment approaches, (2) build a model for examining the efficacy of selected alternative assessment approaches, and (3) begin the process of conducting evaluation and feasibility studies to determine the effectiveness of alternative assessment approaches in various traditional and nontraditional secondary and postsecondary vocational-technical education settings.

During 1992, the evaluation and feasibility studies will be completed, the findings will be analyzed, and two documents describing the assessment approaches will be produced for practitioners and researchers.

This project will produce public-domain products in 1992.

Project I.16
FACTORS INFLUENCING TECH-PREP PLANNING AND IMPLEMENTATION

Project Directors: Debra D. Bragg, University of Illinois
L. Allen Phelps, University of Wisconsin–Madison
(Year 1 of 2)

Keywords: Articulation, Federal Legislation, Educational Planning, Tech Prep, Postsecondary Education

Overall, this two-year project will examine the question of how the federally funded Tech-Prep initiative impacts secondary and postsecondary vocational education goals, policies, programs, services, and administrative structures, examining the planning and implementation phases of the federally funded Tech-Prep initiative. During 1991 the focus is to (1) describe the ways federal, state and local educational agencies, institutions, colleges, and schools plan and implement Tech Prep and (2) identify factors (i.e., organizational policies and processes, leadership behaviors, collective bargaining arrangements, business/industry involvement, financial resources, support services) that influence the effectiveness of Tech-Prep planning and implementation.

During 1992, the second phase of the project will focus on the impact of the Tech-Prep initiative on existing secondary and postsecondary vocational-technical education.

This project will produce public-domain products in 1992.

Project I.17
INDUSTRY-ORIENTED VOCATIONAL PROGRAMS: THE EDUCATION IMPLICATIONS OF CHANGING INDUSTRY STRUCTURE AND OF THE INCREASING INTERACTION AMONG FIRMS

Project Director: Thomas Bailey, Teachers College, Columbia University
Co-Directors: Ross Koppel and Roger Waldinger, Teachers College, Columbia University (Year 1 of 2)

Keywords: School Business Relationship, Cooperative Programs

This project will study exemplary industry-oriented vocational programs and institutions—primarily postsecondary programs. These are programs designed to prepare students for work in a particular industry or sector and are organized, in cooperation with schools and community colleges, by industry institutions, including firms, employer

associations, and unions. One part of the project will result in four case studies of exemplary industry-oriented programs designed to make available information and assessment of these programs to the broader education community.

At the same time, we still have only a rudimentary understanding of the nature and educational implications of these changes in industry structure. Thus, in conjunction with our studies of exemplary programs, we shall also conduct four explicit case studies of the implications for vocational education of the changing relationships among firms and between firms and markets through case studies focussing on two sectors: textiles/apparel/retail and graphics communication.

This project will produce public-domain products in 1992.

Project I.18
ANALYSIS AND USE OF UI WAGE RECORD DATA IN VOCATIONAL-TECHNICAL EDUCATION

Project Directors: L. Allen Phelps, Robert H. Meyer, and Robert Sorenson
University of Wisconsin–Madison (Year 1 of 1)

Keywords: Unemployment Insurance, Data Interpretation, Program Evaluation

This project explores the use of the newly developed, state-level Unemployment Insurance (UI) wage record data to aid in the assessment of vocational-technical education programs. An analysis of various state and federal initiatives to develop and utilize this data for purposes of policy analysis, evaluation, and planning will be undertaken with information sought from five to seven states and several federal agencies. Questions will be posed pertaining to major policy questions being examined, data reliability, supplemental data collection efforts, reporting formats and schedules, use of the data in state and local decision making, and the use of independent or classification variables (e.g., gender).

A monograph will be prepared describing the potential uses for this data and offering recommendations for the development of local demonstration projects.

Project I.19
THE NATURE OF LABOR MARKETS FOR POSTSECONDARY VOCATIONAL EDUCATION

Project Director: W. Norton Grubb, University of California at Berkeley (Year 1 of 2)

Keywords: Labor Market, Job Analysis, Educational Planning, Postsecondary Education

This two-year project will investigate the nature of labor markets for which community colleges, technical institutes, and other institutions providing postsecondary vocational education prepare students. The project will develop and test a number of alternative explanations for the role of educational institutions, concentrating on qualitative analysis of a subset of occupations in a number of specific labor markets. The methodology of this research project will build on that developed in NCRVE research on the nature of health occupations.

This project will produce public-domain products in 1992.

Project I.20
DEVELOPMENTAL PERSPECTIVES ON THE ACQUISITION OF OCCUPATIONAL IDENTITY

Project Director: Nadine M. Lambert, University of California at Berkeley (Year 1 of 1)

Keywords: Childhood Interests, Career Development, Developmental Stages, Career Awareness

This project is designed to improve our understanding of the naturally occurring stages through which children's ideas of careers and work progress and the environmental factors that promote development of occupational awareness. This project involves two related studies of the development of occupational identity. The first is a study of cognitive and social developmental changes from childhood through adolescence in children's understanding of various careers and occupations and their reasons for identifying with one or more of them when they specify a particular future occupational goal. The second study charts changes in children's occupational identity from childhood through adolescence, identifying family factors, school factors, and individual characteristics that account for changes from general to more specific occupational goals and the age periods during which the changes are manifest.

Three products will result from these studies: (1) a summary of the research literature that is relevant to the development of occupational identity; (2) clinical interview procedures for assessing stages in the development of occupational identity; and (3) assessment procedures that are relevant to appraising the status of occupational identity at a particular point in a student's school history.

Project I.21
AN ASSESSMENT OF LABOR MARKET DEMAND AND SKILL REQUIREMENTS FOR ENVIRONMENTAL RESTORATION TECHNICIANS

Project Director: Paula M. Hudis, MPR Associates, Inc. (Year 1 of 2)

Keywords: Hazardous Materials, Labor Needs, Waste Disposal

This two-year study will address several questions that are key to ensuring that the technically trained workforce required to handle hazardous waste management in the future is adequate in both numbers and qualifications. These inquiries include (1) estimating current and projected labor market demand for environmental restoration technicians (ERTs) under alternative legislative and regulatory scenarios; (2) identifying the current and projected public and private-sector employment patterns of ERTs and the skills required for their jobs; and (3) estimating the gap between currently available skills and future national needs. Year one work will focus on estimating labor market demand. Year two activities will identify current and projected occupational skills required of ERTs.

A report will be produced detailing the kinds of ERT jobs; their public and private sector organizational distribution; and the numbers of ERTs that will be necessary under alternative legislative, regulatory, and fiscal scenarios.

Project I.22

THE PHILOSOPHICAL FOUNDATIONS OF VOCATIONAL EDUCATION

Project Director: Vernon A. Howard, Co-Director, Philosophy of Education Research Center, Harvard University (Year 1 of 1)

Keywords: Integration of Vocational/Academic Education, Education Work Relationship

This project will address fundamental philosophical questions in vocational education, with the objective of deepening our understanding of what is involved in the integration of vocational and academic studies.

The study is in three phases, the first of which will provide a draft manuscript. In phase two, the project director will address the aforementioned questions with practitioners in the field, using the draft document as a basis of discussion. In so doing, the project director will seek to create a focused dialogue on the principles, assumptions, rationales, and future directions of vocational education.

A monograph will be prepared addressing philosophical questions central to the integration of vocational and academic education.

II. CURRICULUM AND INSTRUCTIONAL METHODS

Project II.2
INTEGRATING ACADEMIC AND VOCATIONAL EDUCATION: A CLOSER EVALUATION

Project Director: W. Norton Grubb, University of California at Berkeley (Year 3 of 4)

Keywords: Instructional Material Evaluation, Postsecondary Education, Evaluation Methods, Integration of Vocational/Academic Education

The project continues the NCRVE's research into the integration of vocational and academic education. It will move past the descriptive stage of earlier work to develop more evaluative analysis of current efforts to integrate vocational and academic education, in particular by examining specific curricula with the aid of subject-matter specialists and by examining alternative assessment instruments. The project will also examine several subjects related to the integration of vocational and academic education which have been relatively ignored, including integration at the postsecondary level and integration of history, literature, and social science with vocational curricula.

This project will produce public-domain products in 1992.

Project II.4
APPLICATION OF COGNITIVE THEORY IN THE DEVELOPMENT AND DESIGN OF VOCATIONAL EDUCATION INSTRUCTION

Project Directors: Ruth G. Thomas, University of Minnesota
Scott Johnson, University of Illinois
(Year 4 of 5)

Keywords: Instructional Design, Learning Processes, Instructional Material Evaluation, Cognitive Processes

This NCRVE project is concerned with understanding how knowledge should be acquired and organized in vocational education to facilitate adaptability to change, capacities for dealing with complexity, and independent learning. Earlier phases of the research derived cognitive theory-based instructional design principles and models and applied them in developing instructional prototypes in two knowledge domains relevant to vocational education. This continuing project will test the instructional prototypes, revise and refine

the principles and models based on test results, and disseminate the principles, models, and prototypes to vocational educators, administrators, policymakers, and researchers.

This project will produce public-domain products in 1992.

Project II.8
RESEARCH ON THE EFFECTS OF TRAINING IN COOPERATIVE LEARNING AND CONFLICT RESOLUTION

Project Director: Morton Deutsch, Teachers College, Columbia University (Year 4 of 4)

Keywords: Conflict Resolution, Inservice Teacher Education, Cooperative Learning, Action Research

The purpose of this project is to determine the short- and long-term effects of the educational interventions of cooperative learning and conflict resolution on both students and teachers. The project is an action research approach linking researchers with practitioners in a joint enterprise to explore and further develop these educational interventions. Research objectives for this project include (1) systematic assessment of the intervention effects and their potential educational benefits; (2) the development of appropriate programs which will provide students with the opportunity to learn and practice skills in cooperation, collaboration, conflict management, and resolution; (3) the training of teachers and other appropriate school personnel in the mastery of cooperative and conflict resolution skills, and in the development of subject relevant curricula; and (4) the modification of intervention programs based on ongoing research results and collaboration with teachers and other appropriate school personnel. Research is conducted at three inner-city alternative high school campuses, identified as Campus A, Campus B, and Campus C. Campus A is receiving training in conflict resolution training, Campus B is participating in both conflict resolution and cooperative learning, and Campus C is undertaking training in cooperative learning.

The final report will describe the theoretical foundations of the project; the intervention, research procedures and measures used, and the findings reached; and the implications for further use of the training as educational and occupational interventions.

Project II.16
ANALYSIS AND SYNTHESIS OF COGNITIVE STUDIES OF WORK

Project Director: Sylvia Scribner, Teachers College, Columbia University (Year 1 of 2)

Keywords: Job Skills, Cognitive Processes, Education Work Relationship

This project features additional analyses and synthesis of findings from over a decade of empirical research on cognitive skills at work. This research addresses questions of central importance to education and is relevant to such NCRVE priority areas as the nature of work skills, the impact of new technologies on work skills, learning and teaching processes in the workplace, and the relationship between school and work. The review and synthesis will be directed at examining implications of the research for both basic theoretical issues and NCRVE's educational concerns.

This project will produce public-domain products in 1992.

Project II.17
TEACHING AND LEARNING GENERIC SKILLS IN VOCATIONAL AND ACADEMIC CLASSROOMS

Project Directors: Cathy Stasz, David McArthur, Kimberly Ramsey, and Matthew Lewis, RAND Corporation (Year 1 of 2)

Keywords: Basic Skills, Thinking Skills, Case Studies, Cooperative Learning, Integration of Vocational/Academic Education

This study follows from our previous study of teaching and learning generic skills for the workplace (i.e., basic or enabling skills and complex reasoning skills). Through the use of classroom case studies, this project will examine the teaching and learning of such skills and the motivational factors that influence learning. As our aim is to study the teaching and learning of generic skills in vocational and academic settings, we plan to search for classrooms where teachers claim to focus on problem-solving skills and where classroom learning and student evaluation involves cooperative, project-based work. In addition, this study examines contextual factors in the school and district that can affect classroom teaching practices.

Year-two efforts will focus on data analysis, report writing, or additional site visits if needed.

Project II.18
IMPLICATIONS OF COGNITIVE SCIENCE RESEARCH FOR INSTRUCTIONAL PRACTICE IN VOCATIONAL EDUCATION

Project Director: Scott D. Johnson, University of Illinois (Year 1 of 2)

Keywords: Instructional Innovation, Cognitive Processes, Instructional Effectiveness

Based on an increased understanding of human performance in technical areas and the need to prepare workers who are good thinkers and problem solvers, new approaches to technical instruction are being developed. These strategies are being developed from cognitive science research findings and appear to be effective. This project will conduct three substudies to develop and empirically test three of these instructional strategies that appear to have utility for improving technical teaching and learning. The project will build upon the cognitive science-based projects currently supported by the NCRVE.

This project will produce public-domain products in 1992.

Project II.19
SKILLS ACQUISITION: GRAPHICS AND PRINTING

Project Director: Bob Forrant, Machine Action Project (Year 1 of 1)

Keywords: Job Analysis, Graphic Arts, Machinists, Auto Mechanics

A survey of over two hundred area machinists, graphics and printing tradespeople, and high technology automobile repair workers from a total of twenty different work sites was done in January and February of 1990. The preliminary survey results show that workers in machining, graphics, and the automotive fields are ill-prepared for their first jobs in mathematics, blueprint skills, and in the use of computer-controlled machinery.

This project will expand on this existing skills survey database to include additional survey respondents and to expand to other geographical areas. Enlarging the database will strengthen the reliability of all education, training, and policy implications derived from this data. A broader geographical area of research will allow a more representative sample of workers and the ability to compare and contrast the skill development in different localities.

A final report will be produced by this project.

III. VOCATIONAL EDUCATION FOR SPECIAL POPULATIONS

Project III.6
INFLUENCES ON ADOLESCENTS' CONCEPTIONS OF WORK: OCCUPATIONAL VALUES, IDENTITY, AND ASPIRATION

Project Director: Jeylan T. Mortimer, University of Minnesota (Year 1 of 2)

Keywords: Occupational Aspiration, Work Attitudes, High School Students, At-Risk Persons, Work Experience

The proposed study will examine the influence of work experience on the vocational development of high school students, including occupational values, identity, and aspirations. Considerable attention will therefore be directed to the intrinsic and extrinsic attributes of work, as well as the stressors that are encountered in the work environment. Both objective features of adolescents' jobs and the subjective reality of work—as perceived by the adolescent—will be examined. The data source is the Youth Development Study, a four-year longitudinal study of the impacts of employment on psychosocial development and mental health.

Among the year-two activities, this project will examine the special determinants of vocational development, educational achievement, and dropping-out for those whose backgrounds, at the time of entry to the ninth grade, indicate the likelihood of problems in the future (e.g., low socioeconomic status).

This project will produce public-domain products in 1992.

Project III.7
IDENTIFICATION AND DISSEMINATION OF ARTICULATED TECH-PREP PRACTICES FOR AT-RISK STUDENTS

Project Directors: James L. Hoerner, Darrel A. Clowes, and James C. Impara, Virginia Polytechnic Institute and State University (Year 1 of 2)

Keywords: Articulation, At-Risk Persons, Tech Prep, Postsecondary Education

This study examines the practices and processes of articulated/tech-prep programs that provide the "connective tissue" between secondary and postsecondary educational

systems. Its purpose is to identify alternative models and strategies that work for a broad array of clientele, including the at-risk populations.

The first step is to build a taxonomy of tech-prep programs. Additional steps will be to study the enhancements and barriers to various patterns of instructional cooperation, remediation, and service to specific client groups. The existing literature, professional contacts, interviews, and case studies will be utilized to gather data.

This project will produce public-domain products in 1992.

IV. THE DEVELOPMENT OF PERSONNEL IN VOCATIONAL EDUCATION

Project IV.2
PROFESSIONAL DEVELOPMENT OF BEGINNING VOCATIONAL TEACHERS

Project Directors: Betty Heath-Camp and William G. Camp,
Virginia Polytechnic Institute and State University (Year 4 of 5)

Keywords: Vocational Education Teachers, Beginning Teachers Induction, Demonstration Programs

This project continues a study of the professional development process for beginning vocational teachers. Up to the present time, it has consisted of two parallel and concurrent phases: Phase I has been basic research on the professional development (induction) process for beginning vocational teachers. Phase II is the model building component of the project, and it is currently underway. Phase III will be the implementation, evaluation, revision, and dissemination of a model professional development program for beginning vocational teachers. One or more field test sites will be selected during fall 1990 and spring 1991. The program will be implemented during fall 1991. The evaluation and revision will begin immediately, with the field test concluding in spring 1992.

This project will produce public-domain products in 1992.

Project IV.8
SCHOOL CONTEXT AND PROFESSIONAL COMMUNITY: SPECIAL TOPICS IN THE INTEGRATION OF ACADEMIC AND VOCATIONAL EDUCATION

Project Director: Judith Warren Little, University of California at Berkeley (Year 1 of 2)

Keywords: Teaching (Occupation), Integration of Vocational/Academic Education

This two-year project will contribute to our understanding of the possibilities and limitations of integrating vocational and academic purposes in American secondary schools by examining how specific features of school context bear upon the goals teachers embrace, the teaching assignments they value, the conceptions of "curriculum" that underlie

their classroom practice, and the collegial affiliations they pursue. The project relies in part on comparative analysis of data from vocational and academic teachers in comprehensive secondary schools collected over a three-year period by the Center for Research on the Context of Secondary Teaching (Stanford University), and in part on additional field research at three school sites that permits comparisons between comprehensive high schools and specialized schools or programs that make the integration of vocational and academic education an explicit priority.

This project will produce public-domain products in 1992.

Project IV.9
THE ROLE OF VOCATIONAL TEACHERS IN THE INTEGRATION OF ACADEMIC AND VOCATIONAL EDUCATION

Project Directors: B. June Schmidt and Curtis R. Finch
Virginia Polytechnic Institute and State University (Year 1 of 2)

Keywords: Vocational Education Teachers, Teaching Methods, Integration of Vocational/Academic Education

This project has as its purpose the identification of the vocational teacher's role in integrating vocational and academic education and, based on these findings, the preparation of role statements and a framework that will be useful for inclusion in vocational teacher professional development programs. More specifically, through field interviews with key players in the integration process, this project will (1) identify the roles needed by vocational teachers who integrate vocational and academic education; (2) document the contexts within which integration takes place and the key players in the integration process; and (3) prepare a set of role statements with accompanying implementation framework and procedures for use by teacher educators, administrators, supervisors, and teachers.

This project will produce public-domain products in 1992.

Project IV.10
RESOURCES FOR VOCATIONAL EDUCATION LEADERSHIP DEVELOPMENT

Project Director: Curtis Finch, Virginia Polytechnic Institute and State University
(Year 4 of 5)

Keywords: Leadership Training, Simulated Environment, Material Development

The third phase of this project, which is closely linked with NCRVE leadership development activities at the University of Minnesota, will center on preparing, testing, and refining several research-based leadership development resources. More specifically, this activity will (1) prepare a research-based interactive simulation that facilitates leadership development in a dynamic vocational education environment; (2) prepare a set of research-based case studies or incidents that facilitate leadership development through exploring alternate actions and solutions; and (3) test the resources in several leadership development settings and, based on test results, refine them, and make them available for use in leadership development programs.

This project will produce public-domain products in 1992.

V. THE DELIVERY SYSTEM OF VOCATIONAL EDUCATION AND TRAINING

Project V.10
LEARNING FROM SCHOOL-BASED WORK EXPERIENCE PROGRAMS

Project Directors: David Stern, University of California at Berkeley
Charles Hopkins and James Stone, University of Minnesota
Martin McMillion, Virginia Polytechnic Institute and State University
(Year 4 of 5)

Keywords: Cooperative Education, Outcomes of Education, Longitudinal Studies, Work Experience, Postsecondary Education

This will be the fourth year of a planned five-year longitudinal study. Secondary and postsecondary (two-year college) students in school-supervised work experience (cooperative education) programs, and comparable students in the same schools who hold nonsupervised jobs or who are not employed, are being followed for one to three years after leaving school or college. Detailed data on quality and quantity of employment while in school is being collected from students and their employers. This information will be correlated with students' subsequent performance in the labor market and in further schooling.

This project will produce public-domain products in 1992.

Project V.12
INSTITUTIONAL EXCELLENCE IN VOCATIONAL EDUCATION

Project Directors: George Wardlow and Gordon Swanson, University of Minnesota
(Year 3 of 4)

Keywords: School Effectiveness, Educational Quality, Institutional Evaluation

This continuing project investigates institutional factors underlying excellence in vocational education along with the various indicators of such excellence. The 1991–92 project will refine and elaborate the indicators of excellence identified in earlier phases of the project. Further, it will initiate formal relationships among identified institutions in which the indicators of excellence are clearly observable for the purpose of determining the nature of dynamic interactions among them. In addition, it will seek to gauge the ability of

the process to maintain a national dialogue on excellence among an ever-widening circle of institutions offering vocational education.

This project will produce public-domain products in 1992.

Project V.16
NEW DESIGNS FOR THE COMPREHENSIVE HIGH SCHOOL

Project Directors: George H. Copa and Robert Beck, University of Minnesota
(Year 1 of 2)

Keywords: Comprehensive Programs, High Schools, Program Design, Integration of Vocational/Academic Education

This project will draw on NCRVE research, restructuring projects around the country, and experience in other countries with the goal to design new prototypes for the comprehensive high school, particularly urban schools as a means to enrich the common education (which includes vocational education) for *all* students. The new designs will include attention to learner outcomes, learning process, organization, partnerships, staffing, and cost. The designs will be developed in collaboration with practicing teachers, school administrators, other support staff, state education agency personnel, teacher educators, policymakers, and community representatives. The overall purpose is to *bring together* and *synthesize* findings from several sources into new designs for the comprehensive high school.

This project will produce public-domain products in 1992.

Project V.17
SCHOOL-BASED ENTERPRISE: POTENTIALS AND PROBLEMS

Project Directors: Robert Crain, Teachers College, Columbia University
David Stern, University of California at Berkeley
Charles Hopkins and James Stone, University of Minnesota
Martin McMillion, Virginia Polytechnic Institute and State University
(Year 1 of 2)

Keywords: Experiential Learning, Entrepreneurship, Postsecondary Education

School-based enterprises (SBEs) operate in conjunction with many vocational programs in high schools and two-year colleges. Their purpose is to give students an

opportunity to apply what they are learning in school by producing useful goods or services for other people. Yet, in spite of its appeal, SBE does not play a major role in most U.S. schools. The present project will provide better understanding of why SBE has not become a more central feature of U.S. high schools and two-year colleges. Case studies of ten to fifteen successful SBEs will, in addition to describing their accomplishments, document the obstacles and difficulties they have had to face. This will indicate how local, state, or federal action might best facilitate the further development and spread of SBEs.

This project will produce public-domain products in 1992.

Project V.19
THE CAUSES AND INTERPRETATION OF NON-COMPLETION IN POSTSECONDARY VOCATIONAL EDUCATION

Project Directors: Robert Fitzgerald, MPR Associates, Inc.
W. Norton Grubb, University of California at Berkeley
(Year 1 of 2)

Keywords: Dropout Research, Postsecondary Education

This project will examine the reasons for the dramatic increase in the rate of non-completion in postsecondary vocational education between 1972 and 1986. The research will carefully distinguish between changes in the composition of students attending postsecondary education and institutional and policy characteristics that affect non-completion rates.

This project will produce public-domain products in 1992.

VI. GOVERNANCE AND POLICY

Project VI.12
POLICY FOR INTEGRATED ACADEMIC AND VOCATIONAL EDUCATION

Project Directors: Susan Bodilly and Jeannie Oakes, RAND Corporation (Year 2 of 3)

Keywords: Policy Formation, Integration of Vocational/Academic Education

Through longitudinal case studies, analyses of the NCRVE Fifty State Survey, and interviews of policymakers, this project will identify the governmental and nongovernmental factors that might enable or impede the development and implementation of integrated vocational and academic education in the coming years. The project is directed toward informing policymakers and educators about integration and its implementation so that any top down policy developed has the desired effects.

This project will produce public-domain products in 1992.

Project VI.13
ACCOUNTABILITY IN VOCATIONAL EDUCATION

Project Director: Paul Hill, RAND Corporation (Year 2 of 2)

Keywords: Evaluation Criteria, Evaluation Methods, Accountability, Performance Factors

The goal of this project is to identify performance and accountability mechanisms that might be used to improve vocational education.

Project goals are twofold: to identify those aspects of vocational education that might be strengthened by better performance indicators, and to formulate requirements for the needed indicators and assessment processes. A major focus of the project will be an effort to identify criteria for determining whether, for particular functions of vocational education, it is possible to build formal indicator systems that reliably improve upon the (usually) informal and unsystematic performance assessment methods that already exist.

Much of the work of the project will be conceptual, informed by extensive consultation with vocational education practitioners and consumers—students and the

leaders of enterprises that hire them—as well as with state, federal, and school district officials. But we will also consider the technical quality of existing and prospective measurement schemes and reporting networks.

The final report will identify options for development of accountability systems for education agencies at the federal, state, and local levels, for particular institutions, and for consortia of interested parties in local labor markets.

Project VI.14
EFFICIENCY AND EQUITY EFFECTS OF VOCATIONALLY FOCUSED POSTSECONDARY EDUCATION AND TRAINING

Project Directors: Darrell R. Lewis and James C. Hearn, University of Minnesota (Year 2 of 2)

Keywords: Postsecondary Education, Outcomes of Education, Socioeconomic Status, Social Justice

This project investigates the efficiency and equity effects of public investment in postsecondary vocational education and training, using the nationally representative High School and Beyond data set. This ongoing research activity will continue to focus on two basic research questions: (1) Has the existence of vocational training programs in the public sector contributed to equity by reducing the intergenerational transmission of parental socioeconomic status? (2) Has the existence of vocational training programs in the public sector contributed to equity by improving the earnings functions of students graduating from those institutions?

This project will produce a final descriptive report.

Project VI.16

ALTERNATIVE DATA SYSTEMS FOR LOCALLY BASED VOCATIONAL EDUCATION ACCOUNTABILITY

Project Directors: Brian Stecher and Lisa Hudson, RAND Corporation (Year 1 of 2)

Keywords: Accountability, Information Needs, Information Management, Evaluation Criteria, Evaluation Methods

The project builds upon the NCRVE-supported work of Paul Hill (see Project VI.13 above) that delineates the needs of potential users of vocational education information at the local, regional, state, and national levels and the requirements for new data systems that meet these needs. This present project adopts a "bottom up" approach, beginning with measures that address local needs and exploring how data that is locally relevant can form the basis for a nested system that satisfies the requirements of decision makers at other levels as well. Data will be gathered through a literature review, supplemented with information gathered on-site from vocational education comprehensive or innovative accountability and/or monitoring systems.

A report will be prepared in year one that describes the evaluative framework and illustrates its use with data obtained from the site visits.

PART TWO:
THE SERVICE FUNCTIONS OF THE NATIONAL CENTER

In addition to research and development, the National Center for Research in Vocational Education (NCRVE) must perform various service functions for vocational educators and policymakers. The Carl D. Perkins Vocational Education Act specifies the activities which the NCRVE must undertake:

- Provide leadership development;
- Provide inservice education for state and local leaders in vocational education;
- Disseminate the results of the research and development projects funded by the Center;
- Provide information to facilitate national planning and policy;
- Provide technical assistance to programs serving special populations;
- Act as a clearinghouse on research, curriculum development, and personnel development
- Work with various public agencies in developing methods of planning and evaluating programs; and
- Report to Congress, the Secretary of Education, and the Secretary of Labor on joint planning and coordination under the Perkins Act and the Job Training Partnership Act.

We view these various activities as different forms of dissemination—that is, different ways of making the research and development of the NCRVE useful to teachers, administrators, policymakers, and other researchers.

Several principles will guide the NCRVE's service efforts. First, to the extent possible, service functions will be integrated with research programs, and performed as part of the six issue areas described in Part One.

Second, the various services in general, and dissemination in particular, will be designed to integrate researchers and practitioners, rather than to keep them separate in different worlds.

Third, as a general proposition, the NCRVE will attempt to build up the institutional infrastructure of vocational education through leadership development and inservice education.

Finally, the Policy Forums that will operate as part of the requirement to provide information for national planning will place high-level policymakers and practitioners in contact with each other, again facilitating the institutional linkages and informational flows necessary for the development of vocational education.

Service Activity 4

ADVANCED STUDY CENTER FOR LEADERSHIP DEVELOPMENT: FACILITATING AND EVALUATING LEADERSHIP DEVELOPMENT ACTIVITIES

Project Director: Jerry Moss, University of Minnesota (Year 4 of 5)

Keywords: Material Development, Leadership Training, Leadership Qualities, Administrator Effectiveness

The leadership development responsibility of the NCRVE is carried out through the Advanced Study Center for Leadership Development (ASCLD). The ASCLD is not a separate unit within the NCRVE. Rather, it is a sustained and coordinated program designed to increase the quality and quantity of leaders in vocational education through the study of leadership, and to improve leadership by utilizing the gained knowledge.

The ASCLD will build on its prior efforts by conducting three types of activities in 1991 and 1992. First, the ASCLD will develop instructional materials to be used in the leadership training of vocational administrators (Project IV.10 above). Second, two projects will be conducted at the University of Minnesota to determine the criteria vocational educators use in assessing leader effectiveness and to test the extent to which selected leader attributes explain the variation in leader effectiveness among vocational administrators in different situations. Third, the ASCLD will focus on three projects which continue to facilitate, evaluate, and disseminate the results of leadership development activities in institutions of higher education and assist the U.S. Department of Education in implementing key concepts of the reauthorized federal vocational legislation:

Project 1 Support and evaluate leadership development activities for graduate students majoring in vocational education in several institutions of higher education and disseminate the results widely.

Project 2 Provide leadership development activities for practicing administrators and other leaders in vocational education, using institutions of higher education to deliver services; the ASCLD will evaluate the effectiveness of the activities.

Project 3 Provide resource materials that can be used at national, state, or local conferences/workshops dealing with the implementation of new federal vocational legislation. The materials will be based upon research findings and will communicate practical, exemplary models for use in vocational programs.

ASCLD will develop resource materials for workshops dealing with implementation of the new federal vocational legislation.

ADDITIONAL LEADERSHIP ACTIVITIES AT THE UNIVERSITY OF CALIFORNIA AT BERKELEY

Keywords: Leadership Training, Integration of Vocational/Academic Education, Education Work Relationship, Cooperative Planning, Agency Cooperation

In addition to the ASCLD activities described above, the Center's administrators are constantly engaged in leadership activities which promote the Center and its priorities. **Gordon Swanson**, Associate Director, has been directly and vigorously involved with a wide array of vocational education organizations, most notably the State Councils on Vocational Education. **Gerald Hayward**, Deputy Director, has been working closely with the California Superintendent of Public Instruction, serving as a key vocational education advisor on the Superintendent's statewide High School Task Force, and providing technical assistance to the Department of Education as it embarks on its reorganizational effort to merge the vocational unit with the nonvocational curriculum unit. In addition, Hayward is working with the Executive Directors of the School Board Associations of the Pacific Rim states of Alaska, Washington, Oregon, and California on a leadership training program for school board members concerning the Center's priority issues. The Director, **Charles Benson**, is also widely involved in leadership activities with major educational interest groups. One indication of the outcome of Professor Benson's activities was the recent decision by the Chief State School Officers to designate vocational education and job training as their major theme in 1991. They have specifically requested that the Center work with them as we plan together for an appropriate set of activities.

Service Activity 6
INSERVICE EDUCATION

Project Directors: Lois A. Beeken and B. June Schmidt
Virginia Polytechnic Institute and State University (Year 4 of 5)

Keywords: Inservice Education, Professional Development, Delivery Systems, Tech Prep, Integration of Vocational/Academic Education, Postsecondary Education, Performance Factors, At-Risk Persons

The Inservice Education Project (ISEP) is vital to the NCRVE mission of integrating research and practice. To carry out the mission, ISEP has been assigned the

role of providing the coordination and direction of inservice education for the NCRVE. In its service role, the ISEP will engage in the following activities:

Task 1	Liaison to Center sites concerning inservice activities and needs
Task 2	Technical assistance to Center research and service projects
Task 3	National professional development conference for community college faculty and administrators concerning the professional development of part-time faculty, vocational/academic integration, tech prep, at-risk students.
Task 4	Development of a training module on the integration of occupational and academic education
Task 5	Pre-AVA seminar on implementing performance standards
Task 6	Reading/writing institute, SREB–State Vocational Education Consortium staff development conference
Task 7	Satellite teleconference on implementing performance standards: models of compliance
Task 8	National seminar on workforce education: JTPA and vocational education coordination
Task 9	National workshop on developing tech prep curricula and partnerships

The primary vehicle for information concerning ISEP and other Center inservice education activities will be the *Calendar of Professional Activities*, which will be produced and disseminated four times a year. Other products that will be developed are as follows: proceedings from the proposed conference on professional development for two-year college faculty and administrators; a module on the integration of occupational and academic education; a summary of the pre-AVA seminar on implementing performance standards; a monograph on integration of vocational and academic education at SREB–State Vocational Education Consortium sites; and a videotape of a satellite teleconference on implementing performance standards in vocational education.

Service Activity 7
TECHNICAL ASSISTANCE FOR SPECIAL POPULATIONS PROGRAM

Project Director: Carolyn Maddy-Bernstein, University of Illinois (Year 4 of 5)

Keywords: Special Needs Students, High Risk Students, At-Risk Persons, Information Dissemination

The overall goal of the TASPP program is to provide professionals and policymakers with an array of services designed to assist in the improvement of vocational education programs for special needs youth and adults. TASPP's primary focus will be on providing technical assistance to professionals in the field to understand and implement the reauthorization of the Perkins legislation. Among TASPP's major activities will be the following:

- **Exemplary Program Search**
  The search for exemplary practices and programs in vocational education programs serving special populations will continue with an emphasis on tech prep, integrating the basics, and performance standards and comprehensive follow-up data.

- **Computerized Information Base**
  The computerized information base will be expanded to include information concerning reauthorization.

- **Newsletter**
  TASPP will publish a newsletter, the *TASPP Bulletin*, semiannually.

- **National Conference**
  A one-and a half-day national conference to assist professionals in understanding and implementing the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (also referred to as the Perkins Reauthorization Act) will be held prior to the American Vocational Association's Annual Convention.

Publications resulting from the TASPP program will include the *TASPP Bulletin*; four short research and resource papers, *TASPP Briefs*, on targeted subjects related to the reauthorization theme; a guide on resources to help professionals serving special learners to understand and implement the Perkins Reauthorization Act; an updated and expanded *Directory of Human Resources*; a monograph on identified exemplary programs; and a

monograph on the plans and progress of the National Institute State Teams. Addenda will also be produced for the previously published resource guides on students with limited English proficiency, teen parents, at-risk students, and transition.

Service Activity 8
DISSEMINATION

Project Director: Peter Seidman, University of California at Berkeley (Year 4 of 5)

Keywords: Information Dissemination, Referral, Publications

In year four, the dissemination unit will develop a centralized *translation network* between the NCRVE and its clientele. This network will translate knowledge in ways useful *and* usable to our constituencies and facilitate the movement of that knowledge in useful, usable forms. This translation network will use the following three strategies:

- **Knowledge spread**
  Knowledge spread is the one-way distribution of knowledge produced by the NCRVE. Spread will include generating and distributing approximately thirty new contractually required products as well as the thirty products published during the NCRVE's first three years. In addition, "derived" materials (i.e., spinoffs) of these products will be produced. The NCRVE will continue issuing its newsletter, *CenterWork*, six times a year. Also, three issues of a review of NCRVE research, *Change Agent,* will be sent to local educational leaders.

- **Knowledge choice**
  Knowledge choice involves assisting the NCRVE's clients to access information. The major technologies used to implement this dissemination function are an information brokerage, state/federal projects databases, an address database, a NCRVE product database, and electronic communications.

- **Knowledge exchange**
  Knowledge exchange promotes the multi-way flow of NCRVE-produced knowledge. The key implementing approaches that will be used in encouraging this flow are electronic communications and links with key client groups (e.g., NNCCVTE, ERIC/ACVE, the Education Writers Association, and the Federal Laboratory Consortium).

Service Activity 9
TECHNICAL ASSISTANCE FOR PLANNING AND EVALUATION

Project Director: Gary Hoachlander, MPR Associates, Inc. (Year 4 of 5)

Keywords: Educational Planning, Policy Formation, Technical Assistance, Data Analysis, Agency Cooperation, Cooperative Planning, Integration of Vocational/Academic Education, Program Evaluation, Minority Group Teachers, Minority Group Children, Teacher Participation, Student Participation

During year four, MPR Associates will perform four types of service activities: (1) liaison functions, (2) national planning, (3) data library and newsletter, and (4) technical assistance.

- **Task 1: Liaison**

  During year four, the project director will serve as NCRVE's liaison to a number of national associations, including the National Association of State Directors of Vocational Education, the National Occupational Information Coordinating Committee, and the National Governors Association.

- **Task 2: National Planning and Evaluation**

  The project director will serve as the NCRVE's Director of National Planning and Evaluation, coordinating all efforts in this area. Additionally, this function will include two major activities. First, through a series of meetings in Washington with federal agencies and other parties, NCRVE will continue to develop a comprehensive plan for collecting national data on vocational education. Second, the project staff will expend a major effort on implementation of the Perkins reauthorization issues. The staff will help plan and conduct at least four regional conferences in cooperation with OVAE. Additionally, staff will conduct follow-up activities at other meetings of interested organizations and associations.

- **Task 3: Data Library and Bulletin**

  This project will continue to update and maintain NCRVE's mainframe computer data files. This activity will include preparation of data files for researchers at each of NCRVE's sites, programming support for NCRVE's national planning and technical assistance efforts, and continued publication of NCRVE's technical bulletin, *Data Update*, on the NCRVE's data library.

- **Task 4: Technical Assistance**

  Project staff will have primary responsibility for responding to requests for technical assistance that can be addressed using NCRVE's Data Library. Second, technical assistance may also take the form of consultation to states or groups of states on major planning or evaluation efforts. Two major activities are planned. First, this project will continue to assist the Vocational Education Consortium of the Southern Regional Education Board (SREB) in its reform efforts. Second, in cooperation with the National Association for the Advancement of Black Americans in Vocational Education (NAABAVE), project staff will prepare a major report on minority participation in vocational education, including students and staff.

Service Activity 10

RELATIONSHIPS BETWEEN VOCATIONAL EDUCATION AND THE JOB TRAINING PARTNERSHIP ACT

Project Directors: W. Norton Grubb, University of California at Berkeley
Gary Hoachlander, MPR Associates, Inc. (Year 4 of 5)

Keywords: Job Training, Cooperative Programs, Federal Legislation, Welfare Services, Remedial Programs

This research provides the basis for the report to Congress, the Secretary of Education, and the Secretary of Labor required of the NCRVE by the Carl D. Perkins Vocational Education Act. Among the important issues that the project could examine, depending on impending legislative changes, are the following:

1. What influence have the changes in the Perkins Act and JTPA had on coordination at the state level? On coordination at the local level?

2. Have changes in resources hampered coordination in any way?

3. With the further implementation of welfare-to-work programs under the Family Reform Act of 1988, how are these programs using vocational education and JTPA programs?

4. What trends have there been in the use of 8-percent funds, and how (if at all) have the development of welfare-to-work programs and the enactment of Human Resource Investment Councils affected the priorities for funding from these funds?

5. Is there less coordination between JTPA and youth (as compared to adult) education programs? If so, why?

6. Has the 1990 task of examining the nature of remediation efforts that are part of vocational education, job training, and welfare-to-work programs been sufficiently fruitful to merit extension into 1991?

This project will generate a final report at the end of 1991, which will be the required report to Congress, the Secretary of Education, and the Secretary of Labor.

Service Activity 11
AN INFORMATION EXCHANGE ON TECH-PREP PROGRAMS

Project Directors: W. Norton Grubb and Gerald Hayward, University of California at Berkeley (Year 1 of 2)

Keywords: Articulation, Information Dissemination, Tech Prep, Program Evaluation

There are two principle activities that will take place as part of this Information Exchange: examination of the variety of tech-prep programs and a survey to generate more systematic information about the variety of existing efforts.

The project will survey both secondary and postsecondary institutions participating in tech-prep programs in order to develop thorough profiles of efforts. The information collected through the survey can then be used to provide assistance to other institutions trying to establish tech-prep programs.

Second, the NCRVE's work will be coordinated with the work of the National Network for Curriculum Coordination in Vocational and Technical Education (NNCCVTE) and the clearinghouse on tech-prep programs they plan to establish. At the moment, the NNCCVTE clearinghouse will concentrate on the collection and dissemination of curriculum and other documents developed by tech-prep programs. This clearinghouse intends to be comprehensive, and so the work of the Information Exchange—particularly the survey—will help them to learn about the universe of programs in the country. In exchange, the materials they collect will be useful to NCRVE's efforts to understand what tech-prep programs do. The NCRVE's efforts will concentrate on more analytic and evaluative approaches to tech-prep, distinguishing those efforts which are relatively modest from those which have the potential to reshape vocational education. The long-range goal of the NCRVE's efforts will be to assess the effectiveness of tech-prep programs in enhancing access to technical occupations—an evaluative goal quite different from that of

the NNCCVTE clearinghouse. While the precise collaboration between the NCRVE and the NNCCVTE remains to be developed, this distinction between neutral collection and distribution of materials and an evaluative approach provides an obvious and natural division of labor between the two entities.

Third, the Information Exchange will generate a database on tech-prep programs, which will be used both to provide information to others and to develop a monograph on existing tech-prep efforts.

This project will generate a report on the nature of tech-prep programs, and a final report on the survey of tech-prep programs.

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(Descriptors from the *Thesaurus of ERIC Descriptors-12th Edition-1990* comprise the majority of phrases used as **keywords** used in this publication. NCRVE staff hope that this procedure extends the usefulness and usability of *The 1991 Agenda*.)

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